

I claim:

1. A drilling tool (1), comprising a shank (3) with a first end (5) and a second end (7), at least one of the ends having a drill head (8, 81, 82) with flutes (10), the drill head having at least three lips (9) and a centering cone (11), and the main cutting edges (91) of the at least three lips of the drill head (8, 81, 82) being relief-ground at least in sections, wherein the centering cone (11) projects from an area which is described by the cutting edges (91) by rotation of the drilling tool about its shank axis (2).
2. The drilling tool as claimed in claim 1, wherein the area which is described by the cutting edges (91) by rotation of the drilling tool about its shank axis (2) comprises essentially a plane area.
3. The drilling tool as claimed in claim 1, wherein the centering cone (11) has at least three cutting edges (93).
4. The drilling tool as claimed in claim 3, wherein the cutting edges (93) of the centering cone (11) run obliquely relative to the feed direction of the tool, in particular wherein the cutting edges (93) of the centering cone (11) have a smaller point angle than the main cutting edges (91).
5. The drilling tool as claimed in claim 3, wherein the cutting edges (93) of the centering cone (11) are relief-ground in a positive manner at least in portions.
6. The drilling tool as claimed in claim 1, wherein the shank (3) has at least one step (21) in the feed direction (19) of the tool.
7. The drilling tool as claimed in claim 1, wherein the shank (3), preferably at the second end (7), has at least one clamping surface (13).
8. The drilling tool as claimed in claim 1, wherein the drilling tool, in particular the drill head (8, 81, 82), has a coating which comprises a mechanically resistant material.

9. The drilling tool as claimed in claim 8, wherein the coating comprises an anti-corrosion material.
10. The drilling tool as claimed in claim 1, wherein the material of the drill head (8, 81, 82) comprises at least one of carbide and fine-grain solid carbide and HSS and HSSE.
11. The drilling tool as claimed in claim 1, wherein the flanks (12) of the main cutting edges have a convexly shaped region, in particular wherein the flanks (12) of the main cutting edges are convexly shaped.
12. The drilling tool as claimed in claim 11, wherein the convexly shaped region is shaped in such a way that the drill works free of canting up to 10° to the normal of a workpiece surface to be spot-drilled.
13. The drilling tool as claimed in claim 1, wherein the flanks (14) of secondary cutting edges (92) of the tool are relief-ground.
14. The drilling tool as claimed in claim 1, wherein both ends (5, 7) of the shank (3) have a drill head (81, 82).
15. The drilling tool as claimed in claim 14, wherein the drill heads (81, 82) have different diameters.
16. The drilling tool as claimed in claim 14, wherein the drill heads (81, 82) have at least one of different rake angles and point angles and clearance angles and centering cones with different dimensions.